WILD FOODS

Tests by the University of Sydney confirm what studies all around the world have found: insects are nutritious.

INSECT DINNER: THE BIG TABOO

BY TIM LOW

IN THE 1970S, THE TABOOS CAME tumbling down. Teenagers all over the Western world felt free to indulge in sex, alternative lifestyles and foods. Yet some powerful taboos did survive that era, and one of these was the taboo against eating insects. It is very odd that we in the West, open-minded and adventurous as we are, do not consume insects. We are indoctrinated to think that insects are disgusting and unfit for human consumption. Yet this is just the myth that maintains the taboo.

Many members of the class Insecta are tasty and nutritious. If you don't believe me, try a moth that has been lightly fried in a touch of oil*. (Or eat it raw.) If you can't bring yourself to do this, or if you think the moth tastes horrid, this only shows how strongly the taboo controls you.

As a liberated male I shrugged the taboo off long ago. Over the years I have indulged in many kinds of insects and other arthropods, and nearly all were good: caterpillars, grasshoppers, ants, flies, cockroaches, moths, as well as centipedes and spiders (members of the related classes Chilopoda and Arachnida).

I have helped others shed the taboo. I once persuaded a television journalist to eat a live March fly. On "A Current Affair" I goaded spider-fearing journalist Cathy Phillips to eat a baked golden orb-weaving spider (*Nephila* species). She agreed it had a pleasant taste, like pâté.

Australian Aborigines were not bound by the taboo and ate plenty of insects. Their fondness for witchetty grubs is well known (see ANH Autumn 1990). Some Aboriginal groups also ate moths, ants, termites, flies, wasp larvae, lerps, hawkmoth caterpillars and praying mantids.

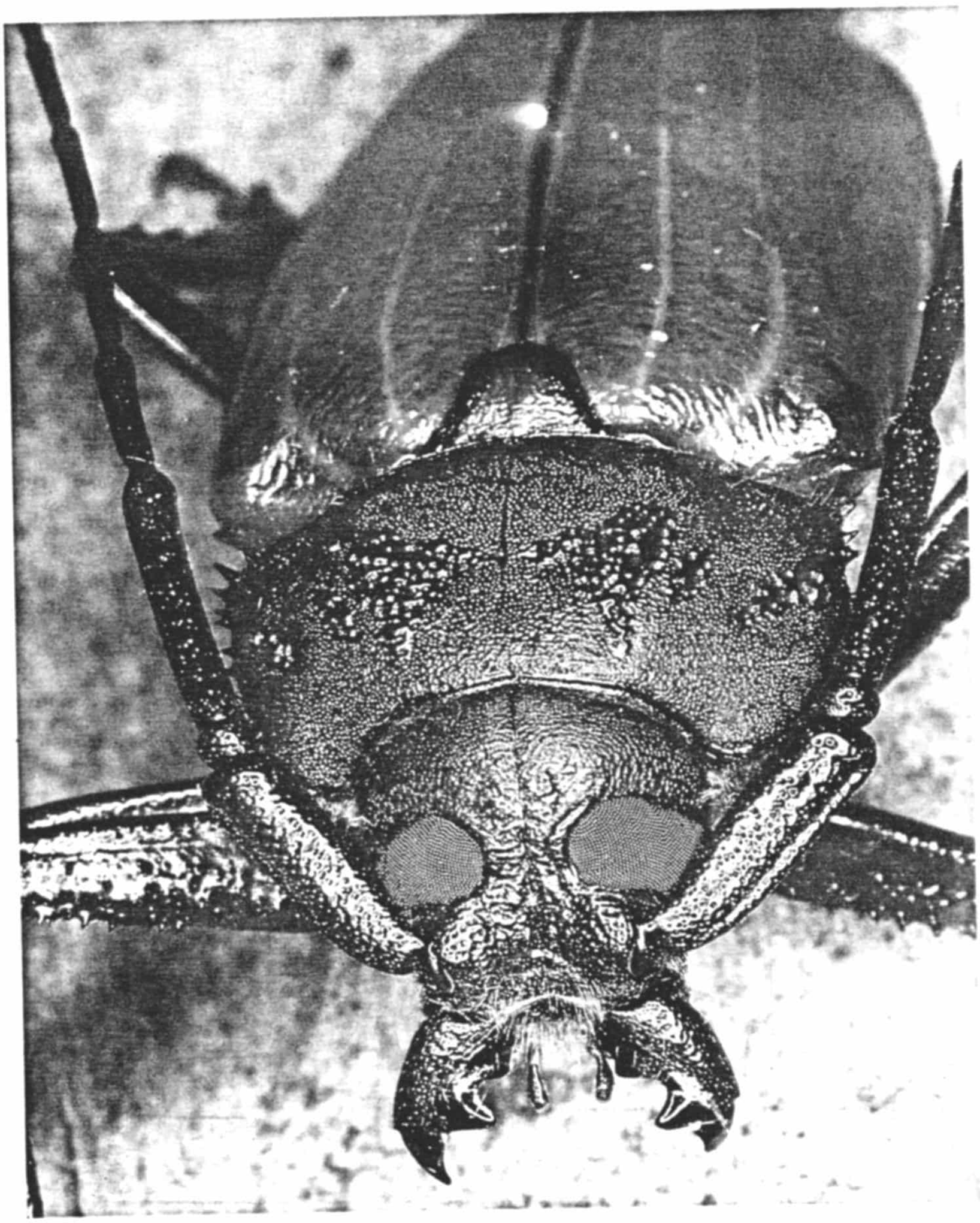
In northern Queensland, blood-sucking March flies (family Tabanidae) were eaten. I often snack upon these in the bush, for the abdomens have a pleasant sweet taste.

In the central deserts, caterpillars of the hawkmoth *Hyles lineata livornicoides* were an important food after rain. I was not keen to try these brightly coloured caterpillars when I found some crawling over tar vines (*Boerhavia* species) near Windorah, but despite their bold colours they too are very tasty when roasted over coals.

Honeypot Ants (*Melophorus bagoti*) were (and still are) a delicacy in the mulga woodlands, and Green Tree Ant larvae (*Oecophylla smaragdina*) were eaten in the tropics. Recently, an orchard in northern Queensland has begun serving green ant juice and daiquiri, and green ant chilli sauce.

Overseas, giant water bugs (*Lethocerus* species) sell in the markets of Bangkok. In New Guinea and Africa, farmers eat the insect pests on their crops; and why not? The pests are often more nutritious than the crops.

Africa is the country in which insects



Longicorn beetles such as *Agrionome spinicollis* have wood-boring larvae that Aborigines gathered for food. Along with the larvae of cossid moths, these are called witchetty grubs.

PHOTOS: TIM LOW

**Do not eat moths or other insects bearing bright colours, especially orange or red; these are often toxic. Fortunately, most toxic insects are too distasteful to swallow.*

are eaten the most. Mopane 'Worms', caterpillars of an emperor moth (family Saturniidae), are enormously popular in southern Africa, where they are dried and sold in supermarkets. The low turnout in a recent Zambian election was blamed by some diplomats upon its timing during Mopane Worm season—people were too busy catching caterpillars to vote.

The Malawi cookbook tells how to prepare shield bugs, cicadas, flying ants, bee larvae and grasshoppers. The authors state that the tiny flies (*Chaobora edulis*) that swarm over Lake Malawi during new moon are "extremely nutritious, being high in protein and calcium and containing six times as much iron as ox liver".

Tests by the University of Sydney confirm what studies all around the world have found: insects are nutritious. One witchetty grub sample yielded 0.92 milligrams per 100 grams of thiamine, much more than most Western foods. Bogong Moths (*Agrotis infusa*) are 27 per cent protein and 20 per cent fat. Overseas studies have found that termites contain twice the protein of steak, with a better mix of amino acids than almost any food.

Insects were eaten by Western societies in the past. The Greeks and Romans prized *cossus*, large grubs found in trees, and Moses and John the Baptist ate locusts. But somewhere along the way Western societies lost their taste for six-legged prey.

The few Westerners who advocated entomophagy (insect eating) have been branded eccentrics. In 1875 American entomologist C.V. Riley suggested the harvest of pest locusts, and in 1885 Englishman Vincent Holt wrote the book *Why not eat insects?*

Almost a century later entomologist Ronald Taylor and Barbara Carter published *Entertaining with insects: the original guide to insect cookery.* They gave recipes for cricket crisps, honeybee soufflé, beetle bars, candied insects, insect quiche and chapattis. They also had a section on earthworm cookery, featuring earthworm omelette.

I have not tried these dishes, although I have eaten a range of treats prepared by my friend Tom McRae of the Entomology Department at Queensland University. Tom makes excellent pâté from bee larvae. I can also recommend the witchetty grub soup served at Riberries restaurant in Sydney.

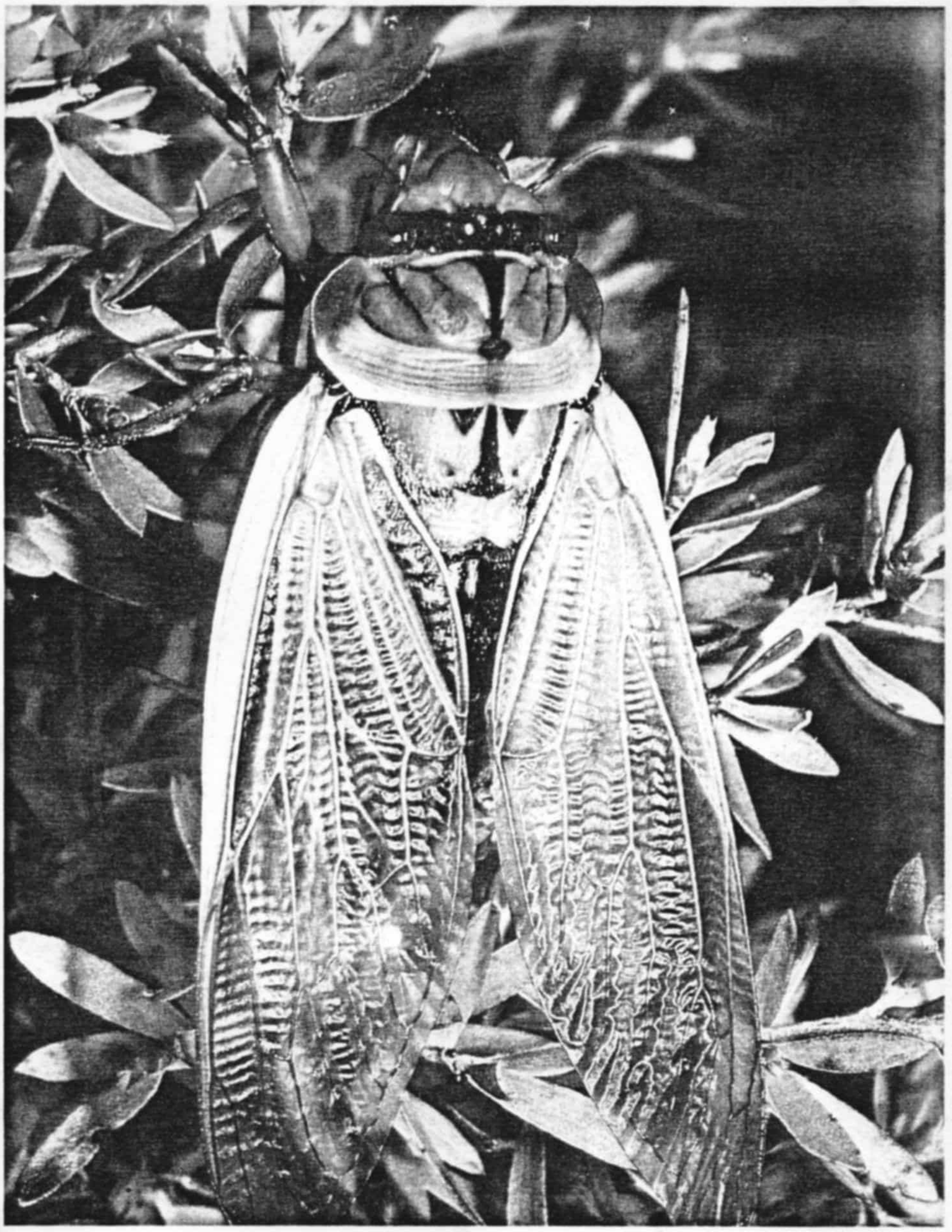
A couple of years ago the New York Entomological Society held a 'bug banquet' featuring mealworm dip and waxworm fritters, attracting world publicity. And the 1992 annual dinner of the Entomological Society of New South Wales commenced with a range of insect tidbits, including Bogong Moth 'fingers' with Motzarella cheese.

It is not surprising that most of the brave souls promoting entomophagy have been entomologists. Imbued with professional respect for things that scuttle and buzz, they are not swayed by the crude prejudice, so vigorously promoted by insecticide makers, that insects are filthy and disgusting.

At present it does not really matter that Westerners do not eat insects. But that may need to change soon. The more I travel the world, the more convinced I am the world faces ruin from overpopulation and degradation. In Africa, Asia and Australia, sheep, cattle and goats are turning pastures to desert. Our seas are overfished. Unless we get very serious about controlling our numbers (and there is no sign of that), we will one day need to find new sources of protein.

Insects are probably the answer. They are nutritious and easy to rear. Colonies of mealworms can be kept in the kitchen. Children could rear silkworms for supper. In the garden, beetle larvae could be bred on kitchen compost. Insect culture could become a logical extension of permaculture.

But first we must put an end to that great taboo. ■



Cicadas (family Cicadidae) are among the many kinds of insects eaten by people. Some Aboriginal groups ate the emerging nymphs, and in Malawi, the adults are fried in oil and salt.

Further Reading

Cherikoff, V., Brand, J.C. & Truswell, A.S., 1985. The nutritional composition of Australian Aboriginal bushfoods. 2. Animal foods. *Food Technol. Aust.* 37: 208–211.

Shaxson, A., Dickson, P. & Walker, J., 1985. *The Malawi cookbook.* Government Printer: Zomba, Malawi.

Taylor, R. & Taylor, B.J., 1976. *Entertaining with insects.* Woodbridge Press: Santa Barbara, California.

Tim Low is an environmental consultant and author of four books about wild foods and medicines, all published by Angus & Robertson. He is especially fond of fly abdomens.